

## CLAIMS:

1. An isolated and purified nucleic acid, the nucleic acid comprising nucleotides which code for the amino acid sequence of SEQ ID NO: 2.

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2. A recombinant vector comprising the nucleic acid molecule of claim 1.

3. The recombinant vector of claim 2, wherein the recombinant vector is a plasmid.

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4. The recombinant vector of claim 2, wherein the recombinant vector is a prokaryotic or eukaryotic expression vector.

5. The recombinant vector of claim 2, wherein the nucleic acid molecule is operably linked to a heterologous promoter.

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6. A host cell comprising the vector acid of claim 2.

7. The host cell of claim 6, wherein the host cell is a eukaryotic host cell.

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8. The host cell of claim 6, wherein the host cell is a prokaryotic host cell.

9. An isolated and purified nucleic acid which codes for human TRDL-1 $\gamma$ , the nucleic acid comprising the nucleotide sequence of SEQ ID NO: 1.

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10. An isolated and purified nucleic acid comprising the nucleotide sequence of SEQ ID NO: 1 or a nucleotide sequence complementary to the nucleotide sequence of SEQ ID: 1.

11. A recombinant vector comprising the nucleic acid molecule of claim 10.

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12. The recombinant vector of claim 11, wherein the recombinant vector is a plasmid.

13. The recombinant vector of claim 11, wherein the recombinant vector is a prokaryotic or eukaryotic expression vector.

14. The recombinant vector of claim 11, wherein the nucleic acid molecule is operably  
5 linked to a heterologous promoter.

15. A host cell comprising the vector acid of claim 11.

16. The host cell of claim 15, wherein the host cell is a eukaryotic host cell.  
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17. The host cell of claim 15, wherein the host cell is a prokaryotic host cell.

18. A method for the identification of a cell line that undergoes apoptosis upon interaction with TRDL-1 $\gamma$ , the method comprising:

15 dividing the cells of a culture of a mammalian cell line into a test culture and a control culture;

contacting a TRDL-1 $\gamma$  polypeptide with the test culture;

determining the quantity of cells of the test culture and the control culture that have undergone apoptosis; and

20 comparing the quantity of cells determined to have undergone apoptosis in the control culture;

whereby a determination that the quantity of cells having undergone apoptosis in the test culture is higher than in the control culture indicates that the mammalian cell line undergoes apoptosis upon interaction with TRDL-1 $\gamma$ .

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19. A method for the identification of an agent capable of inhibiting or enhancing TRDL-1 $\gamma$  mediated induction of apoptosis, the method comprising:

determining the quantity of cells that have undergone apoptosis in a test culture and a control culture, wherein the test culture comprises mammalian cells capable of undergoing  
30 apoptosis upon interaction with TRDL-1 $\gamma$  which have been contacted with a TRDL-1 $\gamma$  polypeptide in the presence of a test agent, and the control culture comprises mammalian

cells capable of undergoing apoptosis upon interaction with TRDL-1 $\gamma$  which have been contacted with a TRDL-1 $\gamma$  poly peptide in the absence of the test agent; and

comparing the quantity of cells determined to have undergone apoptosis in the control culture;

5           whereby a determination that the quantity of cells having undergone apoptosis in the test culture is lower than in the control culture indicates that the test agent inhibits TRDL-1 $\gamma$  mediated induction of apoptosis, and a determination that the quantity of cells determined to have undergone apoptosis in the test culture is higher than in the control culture indicates that the test agent enhances TRDL-1 $\gamma$  mediated induction of apoptosis .

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